



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: William W. King  
Serial No.: 10/607,900  
Date Filed: June 27, 2003  
Group Art Unit: Unknown  
Examiner: Unknown  
Title: ***Iterative Drilling Simulation Process For Enhanced Economic Decision Making***

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail No. EV341125431US addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Shannon Judice  
Shannon Judice  
7/30/03  
Date

Dear Sir or Madam:

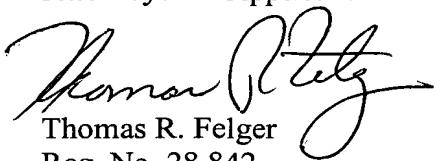
**INFORMATION DISCLOSURE STATEMENT**

Applicant respectfully requests, pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form, and previously cited in U.S. Patent Application Serial No. 09/820,242, filed March 28, 2001, by William W. King, and entitled "***Iterative Drilling Simulation Process for Enhanced Economic Decision Making***", be considered and cited in the examination of the above-identified continuation application. Pursuant to 37 C.F.R. § 1.98(d), copies of the references are not being furnished. Furthermore, pursuant to 37 C.F.R. §§1.97(g) and (h), no representation is made that these references are material to the patentability of the present application.

Applicant believes no fees are due; however, the Commissioner is hereby authorized to charge any fees to Deposit Account No. 50-2148 of Baker Botts L.L.P. in order to effectuate this filing.

Respectfully submitted,

BAKER BOTT S L.L.P.  
Attorneys for Applicant



Thomas R. Felger  
Reg. No. 28,842

Date: 30 JULY 2003

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PTO-1449  O 1 Information Disclosure Citation in an Application  JUL 30 2003	Application No.	Applicant(s)			
	10/607,900	William W. King			
	Docket Number 063718.0279	Group Art Unit	Filing Date June 27, 2003		
U.S. PATENT DOCUMENTS					
DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A. 3593807	7/71	Klima	173	6	
B. 3752966	8/73	Foy et al.	175	40	
C. 3971449	7/76	Nylund et al.	173	11	
D. 4064749	12/77	Pittman et al.	73	152	
E. 4195699	4/80	Rogers et al.	713	177	
F. 4354233	10/82	Zhukovsky et al.	173	6	
G. 4407017	9/83	Zhilikov et al.	173	6	
H. 4627276	12/86	Burgess et al.	175	39	
I. 4685329	8/87	Burgess	175	39	
FOREIGN PATENT DOCUMENTS					
DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
J. 0466255	1/92	EP			
K. 470593	8/75	RU			
L. 726295	4/80	RU			
M. 1716112	2/92	RU			
NON-PATENT DOCUMENTS					
		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)			DATE
N.	E.M. Galle and H.B. Woods, "Best Constant Weight And Rotary Speed For Rotary Rock Bits", API Drilling and Production Practice, pp. 48-73				1963
O.	R. Teale, "The Concept Of Specific Energy In Rock Drilling", International Journal of Rock Mechanics, Mining Sciences, vol. 2, Great Britain, pp. 57-63,				1965
P.	Howell Word and Marvin Fisbeck, "Drilling Parameters And The Journal Bearing Carbide Bit", Drilling--DCW, first published Oct. 1979 in Tulsa, Oklahoma pp. 92-93,				Jan. 1980
Q.	R.C. Pessier, M.J. Fear, "Quantifying Common Drilling Problems With Mechanical Specific Energy and A Bit-Specific Coefficient Of Sliding Friction", SPE Paper 24584, Washington, D.C. pp. 373-388				Published Oct. 1982
R.	Michael A. Simpson, Sr., "Hand-Held Calculator Program Helps Optimize Drilling", World Oil, pp. 97-101				Apr. 1984
S.	Kenneth L. Mason, "3-Cone Bit Selection With Sonic Logs", SPE Drilling Engineering, first published Sep. 1984 in Houston, Texas, pp. 135-142				Jun. 1987
EXAMINER		DATE CONSIDERED			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.					

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## U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	4694686	9/87	Fildes et al.	324	71	
B.	4793421	12/88	Jasinski	173	11	
C.	4845628	7/89	Gray et al.	702	9	
D.	4875530	10/89	Frink et al.	175	27	
E.	4914591	4/90	Warren et al.	175	40	
F.	4926686	5/90	Fay	175	39	
G.	4981037	1/91	Holbrook et al.	166	250	
H.	5010789	4/91	Brett et al.	700	159	
I.	5012674	5/91	Millheim et al.	324	201	

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
J.	2328966	3/10/99	-	-	-	-	-
K.	2343905	5/24/00	-	-	-	-	-
L.	2360304	9/19/01	-	-	-	-	-
M.	23633144	12/12/01	-	-	-	-	-

## NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
N.	Allen D. Gault, "Measurement of Drilling Properties", SPE Drilling Engineer, published New Orleans, Louisiana, Mar. 1985, pp. 143-148,	Jun. 1987
O.	T.M. Burgess, W.C. Lesso, "Measuring The Wear Of Milled Tooth Bits Using MWD Torque And Weight-On-Bit", SPE/IADC 13475, published Mar. 1985, New Orleans, Louisiana, pp. 453-458 for pages illustration	Mar. 1985
P.	Philip Holbrook, Michael Hauck, "Petrophysical--Mechanical Math Model Real-Time Wellsite Poor Pressure/Fracture Gradient Prediction", SPE Pub. No. 16666, published Sep. 1987 in Dallas, Texas.	Sep. 1987
Q.	E.C. Onyia, "Relationships between Formation Strength, Drilling Strength, and Electric Log Properties", SPE Drilling Engineering, pp. 605-618	Oct., 1988
R.	David A. Glowka, "Use of Single-Cutter Data in the Analysis of PDC Bit Designs: Part I--Development of a PDC Cutting Force Model", JPT, pp. 797-849	Aug. 1989
S.	David A. Glowka, "Use of Single-Cutter Data in the Analysis of PDC Bit Designs: Part II--Development of PDC WEAR Computer Code", JPT, pp. 850-859	Aug. 1989

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	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	5216917	6/93	Detournay	175	39	
B.	5282384	2/94	Holbrook	702	12	
C.	5305836	4/94	Holbrook et al.	175	26	
D.	5415030	5/95	Jogi et al.	175	39	
E.	5442950	8/95	Unalmiser et al.	73	152	
F.	5449047	9/95	Schivley, Jr.	173	11	
G.	5458207	10/95	Mattero	173	6	
H.	5704436	1/98	Smith et al.	173	6	
I.	5767399	6/98	Smith et al.	702	10	
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	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES      NO
J.	2363145	12/12/01	-	-	-	-      -
K.	2363146	12/12/01	-	-	-	-      -
L.	2364083	1/16/02	-	-	-	-      -
M.	2365899	2/27/02	-	-	-	-      -
NON-PATENT DOCUMENTS						
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
N.	E. Detournay, P. Defourny, "A Phenomenological Model for the Drilling Action of Drag Bits", International Journal of Rock Mechanics, Mineral Sciences and Geomechanical Abstracts, vol. 29, No. 1, printed in Great Britain, pp. 13-23					1992
O.	Joe Kelly, Jr., "Use break-Even Analysis to Optimize Bit Runs", World Oil, pp. 75-79					Nov. 1992
P.	Geir Hareland and L.L. Hoberock, "Use of Drilling Parameters to Predict In-Situ Stress Bounds", SPE/IADC 25727, pp. 457-471					Feb. 1993
Q.	J.P.R. Sparr and L.W. Ledgerwood, harvey Goodman, R.L. Graff and T.J. Moo, "Formation Compressive Strength Estimates for Predicting Drillability and PDC Bit Selection", SPE/IADC 29397, Amsterdam, Netherlands, pp. 569-578					Published Feb. 1995
R.	R.V. Barragan, O.L.A. Santos and E.E. Maidla, "Optimization of Multiple Bit Runs", SPE/IADC 37644, pp. 579-589					Mar. 4, 1977
S.	R.K. Bratli, G. Hareland, F. Stene, G.W. Dunsae and G. Gjelstad, "Drilling Optimization Software Verified in the North Sea", SPE 39007, 7 pages					Aug. 1997
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	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	5965810	10/99	Holbrook	166	254	
B.	6021859	2/00	Tibbitts et al.	175	431	
C.	6109368	8/00	Goldman et al.	175	39	
D.	3660649	5/72	Gilchrist et al.	346	33R	
E.	3761701	9/73	Wilder et al.	702	9	
F.	4479176	10/84	Grimshaw	700	28	
G.	4794535	12/88	Gray et al.	702	9	
H.	6389360	5/02	Alft et al.	702	9	
I.	4794534	12/88	Millheim	175	40	
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES      NO
J.	2370059	6/19/02	-	-	-	-      -
K.	2370060	6/19/02	-	-	-	-      -
L.	2371321	7/24/02	-	-	-	-      -
M.						
NON-PATENT DOCUMENTS						
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
N.	G. Gjelstad, G. Hareland, K.N. Nikolaisen and R.K. Bratli, "The Method of Reducing Drilling Costs More Than 50 Percent", SPE 47342, 7 pages					Jul. 1998
O.	M.B. Ziaja and J.C. Roegiers, "Lithology Diagnosis Based on the Measurements of Drilling Forces and Moments at the Bit", IADC/SPE 47799, pp. 185-194					Sep. 1998
P.	H. Xu, T. Hatakeyama, T. Yonezawa and A. Suzuki, "Evaluation of Bit Performance Using an Advanced Drilling-Test System", IADC/SPE 47809, pp. 247-252					Sep. 1998
Q.	H.I. Bilgesu, U. Altmis, S. Ameri, S. Mohaghegh and K. Aminian, "A New Approach to Predict Life Based on Tooth or Bearing Failures", SPE 51082, pp. 253-257					Nov. 1998
R.	E.T. Koskie, Jr., P. Slagel and W. Lesso, Jr., "Monitoring MWD Torque Improved PDC Bit Penetration Rates", World Oil, pp. 61-67					1998
S.	R.K. Bratli, G. Hareland, F. Stene, G.W. Dunsae and G. Gjelstad, "Drilling Optimization Software Verified in the North Sea", SPE LACPEC Conference					1997
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A.	2002/0120401	9/01	Macdonald et al.	702	6	
B.	6026912	2/22/00	King et al.			
C.	6155357	12/5/00	King et al.			
D.	6233498	5/15/01	King et al.			
E.	6276465	8/21/01	Cooley et al.			
F.	6424919	7/23/02	Moran et al.			
G.	5794720	8/98	Smith et al.			
H.						
I.						
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NON-PATENT DOCUMENTS						
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N.	K.K. Millheim, "The Role of the Simulator in Drilling Operations", SPE Drilling Engineering					Oct. 1986
O.	Dr. Alan J. Scott, "Online Animations of Time Evolving Physical Systems", Depart of Physics, University of Wisconsin-Stout					No Date
P.	G. Martin Milner and Glen Corser, "Data Processing and Interpretation While Drilling", AADE National Drilling Technical Conference					2001
Q.	Jim O'Hare and Osarumwense O.A. Aigbeakaen Jr., "Design Index: A Systematic Method of PDC Drill-Bit Selection", IADC World Drilling					2000
R.	J Booth and M.M. Cook, "Meeting Future Drilling Planning and Decision Support Requirements: A New Drilling Simulator", SPE/IADC Drilling Conference					2001
S.	P.R. Rampersad, G. Hareland and P. Boonyapaluk, "Drilling Optimization Using Drilling Data and Available Technology", Society of Petroleum Engineers, Inc.					1994
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